how can I deliver innovative customer services across increasingly complex, converged infrastructure with less management effort and lower cost?
Converged Infrastructure Management from CA Technologies does the heavy lifting for your overburdened infrastructure and operations teams by translating huge volumes of monitored data into the actionable insight they need to assure service quality and improve their efficiency.
Converged Infrastructure Management from CA Technologies

executive summary

Challenge

Organizations like yours are pressured to deliver innovative services to fuel business growth. Today, innovation means interacting with customers and employees through social media, streaming video, telepresence, virtual desktop, VoIP, mobile, bring-your-own-device (BYOD) and other services. These new services will require more complex and converged infrastructure: voice/video/data networks, centralized and virtualized data centers, cloud resources, WAN acceleration, wireless networks, and more.

How can already over-burdened operations and engineering teams simultaneously support current services, new services and the more complex infrastructure that enables them? How can IT organizations with strict budgets meet this challenge and overcome the inherent risks of increased infrastructure size and complexity?

Opportunity

Managing innovative services and their new underlying converged infrastructure technologies requires equivalent innovation in how they are managed. New, converged infrastructure management has arrived in time to help your organization make sense of the growing volume of new technologies and their performance metrics. This new approach to infrastructure management can help your organization focus on what is most business-critical, so they can meet customers’ and employees’ soaring expectations for new anywhere, anytime rich-media services and superior user experience.

Benefits

With Converged Infrastructure Management from CA Technologies, IT and engineering teams can get the information they need to more proactively and efficiently manage infrastructure so you can deliver superior, differentiated services. The solution is designed to provide higher scale monitoring and analysis, faster and more pre-emptive triage, and lower cost of ownership than previous approaches to infrastructure management.
Section 1: Challenge

Technology convergence challenges the old ways of managing infrastructure

Infrastructure is the backbone for business service delivery, and its increasing complexity due to technology convergence intensifies the challenges that IT operations and engineering teams face. The escalating importance of delivering superior customer experience as a competitive tool highlights the deficiencies in the current generation of infrastructure management tools.

More often than not, infrastructure management investments are technology specific, compounding overall management complexity. Organizations have too many tools and disparate data monitoring sources that don’t work well together. They often spend more time searching for and manually correlating information to grasp infrastructure status than innovating services and furthering their business priorities.

Aspects and management implications of technology convergence

Fault, performance, capacity and network flow are core aspects of infrastructure management. Monitoring and analyzing these aspects in silos make management more complex, impedes triage, slows resolution, makes it difficult for IT organizations to proactively address infrastructure performance, and ultimately raises operational costs.

Application performance management is a critical component for the successful delivery of business services to end-users. While application delivery relies on infrastructure, each has been managed separately by different teams with little coordination or visibility across domains. This siloed approach to performance management paints an incomplete picture to the detriment of both infrastructure and application performance—and the business.

Voice, video and data convergence across shared infrastructure is adding complexity and creating the need for unified communications management. Increasingly, users are utilizing all three types of services on the same device—wired and wireless. To manage quality of experience better, operations and engineering need to monitor each service type in context of the underlying infrastructure’s health and how they may be impacting each other.

Too much data is a common problem. Most organizations are flooded with monitored data from siloed sources and have no easy means to collect, normalize, analyze and produce actionable insight. As technologies converge, as business demand for unimpeded service performance rise, and as resources become more constrained, the ability to take more decisive action faster becomes a matter of IT professionals’ reputation and survival.
Figure A.
The imperative to drive business success through IT innovation requires new infrastructure as well new IT management initiatives.

Section 2: Opportunity
Converged infrastructure management

CA Infrastructure Management provides best-of-breed capabilities based on the company’s 30-plus years of development experience and recent innovations designed in collaboration with its worldwide customer community. Converged infrastructure management unifies fault, performance, flow, capacity, application response management and more, quickly translating huge volumes of disparate data into actionable insight to improve service quality, predictability and cost-of-ownership.

Figure B.
The innovative Converged Infrastructure Management solution from CA Technologies is precisely designed for harnessing the demanding complexity and scale of new-era converged IT infrastructure.
Converged Infrastructure Management from CA Technologies

**Everything in one place**
A converged approach brings disparate infrastructure management capabilities—typically spread across many separate, loosely integrated tools—together into one solution. Capabilities include broad infrastructure management functions (device performance, availability and capacity as well as network flow); deep analytics for each function; an integrated view of voice, video and data traffic; and an understanding of application response across the infrastructure. This converged view of all aspects of technology monitoring and reporting frees IT from scouring multiple tools to find related information for triaging performance issues and determining root cause. This promotes efficiency and enables teams to spend more time proactively managing the IT environment and break the vicious cycle of reacting to issues after they have impacted the business.

**Figure C.**
Converged management brings performance availability, network flow, capacity, application response and other key infrastructure management functions together to optimize operational processes and lower support costs.

**Actionable intelligence for faster problem triage and resolution**
Huge volumes of raw data are collected from across technology domains and diverse monitoring functions—all normalized for analysis and organized to deliver the most relevant information based on users’ roles and requirements. Comprehensive, deep analytics are displayed in a single web-based graphical user interface (GUI) with innovative tables, trend charts with events and intelligent gauges organized to guide workflow and accelerate problem-solving. This directs operations and engineering teams through best-practice troubleshooting processes designed for converged infrastructure. According to a CA-sponsored study conducted by an independent, third-party lab, CA Infrastructure Management can improve the ease and speed of management up to 25X faster triage than alternative approaches to infrastructure management.\(^1\)
Massive scalability for the largest environments

An advanced architecture offers agent-less data collection, state-of-the-art data aggregation technology and dynamic federated infrastructure performance analysis to quickly transform millions of metrics into actionable intelligence. The Converged Infrastructure Management solution's architecture scales linearly to manage growth for the most complex IT environments. The small hosting equipment footprint and centralized administration results in lower capital and operational expenses.

Figure D.
Deep analytics for all aspects of infrastructure monitoring are displayed in a single GUI whose predefined, customizable dashboards guide workflow for taking more proactive actions and accelerating remediation.

Figure E.
High scalability architecture is designed to manage the tremendous volume and constant growth in traffic, data and devices that support contemporary IT-based business services.
Multi-tenant access control

Native multi-tenancy helps assure controlled access to tenant data. Historically an exclusive requirement for managed service providers, multi-tenancy is a new requirement for enterprises who are transforming their IT operations from a traditional cost center model to an internal cloud-based service provider model. Native multi-tenancy enables both types of organizations to separate monitoring environments according to departments, workgroups, locations, external customers and other groupings. Administration for all tenants through a single user interface simplifies and lowers administrative overhead.

Figure F.
Native multi-tenancy drives secure access to information and simplifies administration.

Section 3: Benefits
Better business outcomes through greater productivity and efficiency

Converged Infrastructure Management from CA Technologies is designed to enable enterprises, managed service providers and communications service providers to deliver superior quality of service with less effort and more economically.
Improved efficiency and reduced operational costs
Converged Infrastructure Management helps you deliver and maintain innovative business services at high quality within cost today’s tough budgetary constraints by:

• Closing the staff “resource and skills gap” and by improving staff problem-solving efficiency through predefined dashboards with built-in guided workflows based engineering best practices

• Rationalizing your portfolio of monitoring and management tools through a single, more comprehensive solution with all infrastructure management functions tightly integrated and visualized in a single console

• Cost-effectively managing massive volumes of infrastructure devices and growth through highly scalable data collection that requires fewer host systems, fewer collectors and lower administrative effort

Improved efficiency of levels 1, 2 and 3 network and systems support
Converged Infrastructure Management improves the efficiency of your more expensive support staff by:

• Speeding triage and time-to-resolution with converged performance metrics consolidated from federated data sources across all technology domains, analyzed and displayed through sophisticated interactive graphics

• Empowering users with predefined technology- and location-specific dashboards, simple wizard-guided processes for self-certifying new devices and for customizing metrics and dashboards

• Preventing and resolving service degradations with dashboards that unify infrastructure availability, performance and capacity, network flow and application response analysis for voice, video and data

Focus more resources on business innovation and revenue generation
Converged Infrastructure Management helps you deliver more differentiated services and build new revenue streams by:

• Cutting capital and operating expenses associated with delivering IT-based services

• Unburdening highly skilled staff from labor-intensive troubleshooting so they can focus more on strategic initiatives that add value to the business

• Guiding safe migration from legacy to new-era infrastructure, such as virtualized data center, cloud resources and converged networks
Section 4: The CA Technologies advantage

Converged Infrastructure Management from CA Technologies is designed to help IT operations and engineering organizations manage new-era infrastructure and services. It streamlines performance, fault and flow management across diverse systems, networks and applications, quickly translating huge volumes of disparate data sources into actionable insight to deliver superior differentiated customer experience—quickly and economically.

Figure H.
Converged Infrastructure Management from CA Technologies provides deep understanding and integrates all aspects of infrastructure management at high scale, guides workflow according to best practices, and improves the speed and ease of management while lowering operational costs.

The Converged Infrastructure Management solution tightly integrates with other CA Service Assurance Management tools to link end-user experience, transactions, and applications with their underlying systems and network infrastructure. Doing so makes it possible for you to understand the performance, risk and quality of services across your physical, virtual and cloud environments. Our software provides complete visibility from a service orientation, so you can prioritize actions based on business impact and SLA compliance. Plus, you can be better equipped to adapt to infrastructure growth and change, without impacting service delivery.
CA Technologies solutions are supported by CA Services’ 1,400 certified consultants and architects located in 25 countries. The collective experience of CA Services earned from more than 35 years of work on thousands of successful CA Technologies projects is unmatched. No other organization has seen CA Technologies solutions in action in more environments than CA Services. The group has one objective: to properly assess the current situation and assist in moving forward as quickly and effectively as possible.

CA Technologies (NASDAQ: CA) provides IT management solutions that help customers manage and secure complex IT environments to support agile business services. Organizations leverage CA Technologies software and SaaS solutions to accelerate innovation, transform infrastructure and secure data and identities, from the data center to the cloud. Learn more about CA Technologies at www.ca.com.

1 Principled Technologies Lab Reports on CA Infrastructure Management 2.0
2 ROI Business Case: CA Infrastructure Management, July 2012. This information is based upon CA Technologies experiences with the referenced software products in a variety of development and/or customer environments and/or estimations derived from the analysis of benchmark data which is a composite of data derived from industry analyst published information, interviews with subject matter experts and experiential data from prior projective analyses. Past performance of the software products is not indicative of the future performance of such software products in identical, similar or different environments. Calculations are estimates only. Your actual savings and/or costs may vary. CA Technologies does not warrant that the software products will operate as specifically set forth in this publication.

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